8.0 Improvement Development Process

After the existing and future conditions were evaluated, strategies were developed to address identified deficiencies. The requirements of the Intermodal Surface Transportation Efficiency Act (ISTEA), the follow up legislation TEA-21, and the supporting Congestion Management System (CMS) regulations, guided the identification of potential strategies for Columbia County. These strategies include demand management, operational management and capital-intensive approaches. The CMS regulations require that appropriate consideration be given to all reasonable alternatives and, more specifically, that consideration be given to strategies that reduce single occupant vehicle (SOV) travel. These requirements are consistent with the purpose and intent of the Columbia County LRTP. A comprehensive listing of potential strategies is contained in the CMS regulations. It is not, however, the intent of the regulations that all of these potential strategies be exhaustively studied. The key is to identify those strategies that are reasonable for the particular location or specific deficiency.

8.1 Identification of Potential Improvement Strategies

The CMS regulations include a comprehensive listing of strategies broken into twelve (12) categories or groups. The boundaries between these groups are not distinct and individual measures may be included in more than one category. For example, park-and-ride lots both encourage the use of high occupancy vehicles (HOVs) and transit. For the purposes of applying the ISTEA, TEA-21, and CMS requirements to the Columbia County LRTP, an attempt was made to separate potential strategies into a hierarchical order that considers first those actions which address the fundamental transportation and land use relationships that cause vehicle trips. If the reason for the trip can be eliminated, so can the trip and its contribution to congestion. In successive rounds, the residual trips not mitigated by previous levels of actions are successively dealt with using techniques aimed at the next higher level of concern. This process is described below:

- **Level One**: Actions that decrease the need for trip making (i.e. growth management, activity centers, congestion pricing, and some transportation demand management measures).
- **Level Two**: Actions that place trips into transit or other non-auto modes (i.e. public transit capital and operating improvements, and parking management).
- **Level Three**: Actions that put as many trips as possible into HOVs.
- **Level Four**: Actions that optimize the highway system's operation for SOV trips, and for all other trips using highway facilities/modes (traffic signalization modification, intelligent transportation systems, etc.).
- **Level Five**: Actions that increase the capacity of the highway system for SOVs by adding general-purpose lanes.

While it is not required that this process be followed in order (i.e., Level One then Level Two then Level Three, etc.), this hierarchy responds to the intent of the regulations, as

well as the intent of the Columbia County LRTP. It is anticipated that most relevant improvement strategies will come from levels 4 and 5, selected strategies from other levels may be appropriates well.

8.1.1 Level One Strategies

The first level includes actions that decrease the need for making the trip by vehicle. This can be accomplished through growth management and the development of activity centers, congestion pricing and also certain types of transportation demand management.

Growth Management / Activity Centers

Land use strategies seek to achieve concurrence between transportation infrastructure and land development. These strategies are often viewed as key to the success of any regional transportation plan, and should be analyzed at the regional scale. Land use strategies that can reduce the demand for SOV travel include locating residential or commercial development along transit corridors and mixed-use development. Mixed-use can be at a micro scale (i.e. individual building or parcel level), or at a macro scale. In addition, growth management practices and activity centers can even eliminate vehicular trips by matching trip productions with attractions at the same site, or by providing good pedestrian, transit and bicycle accessibility. Components of the Columbia County Growth Management Plan could include:

- Land use policies/regulations, including growth boundaries;
- Stricter design/zoning standards which promote this strategy (such as density bonuses);
- Maintenance/development of a jobs/housing balance; and,
- Mixed-use developments, to include zoning classifications that allow and promote mixed-use developments.

Typical keys to success include strong political support for growth management and the promotion of activity centers; good public information and outreach regarding the benefits of this strategy; an emphasis on providing good pedestrian and bicycle accessibility, internal transit circulation, and permitting mixed use/compact development.

Congestion Pricing

There has been limited practice of congestion pricing in the United States., but this strategy may be implemented more often pending the outcome of several demonstration projects that are underway. Congestion pricing is generally used to charge roadway users at a time-differentiated rate to discourage trips during congested periods. At a minimum, it should be implemented throughout a corridor. Elements of a congestion pricing scheme could include:

- Road user fees;
- Parking fees;
- Graduated fares;
- Automated collection/billing systems; and,
- Subsidies for low income commuters.

This strategy can be very controversial and requires an extensive public education and outreach effort, as well as strong political support to follow through on implementation and enforcement. If parking fees are used to implement the road pricing, cooperation and coordination with parking agencies and private sector providers will be necessary.

Transportation Demand Management

Some transportation demand management strategies are effective at eliminating vehicle trips, including telecommuting and trip reduction ordinances. With improvements in communication at a reasonably low cost, telecommuting is becoming more acceptable to both employers and employees. This trend is expected to continue, with such recent technological capabilities as computer-to-computer teleconferencing becoming more common. Trip reduction ordinances can be used to eliminate trips, especially through telecommuting.

Keys to success include understanding of private sector operations and getting employers to recognize benefits of telecommuting, such as lower operating costs. Employee support is typically high, given the opportunity to work at home and reduce travel time and costs. Transportation Management Organizations can be effective in promoting telecommuting and other transportation demand management strategies.

8.1.2 Level Two Strategies

The second level includes actions which attempt to place the trips not addressed in Level One into transit or other non-auto modes. This can be accomplished through capital investments in public transit, public transit operational improvements, intelligent transportation systems, methods to encourage the use of non-traditional modes and certain types of transportation demand management.

Public Transit Capital Improvements

Transit capital improvements are designed to increase ridership on transit lines by improving transit infrastructure or vehicles. These strategies are generally implemented to address regional or corridor transportation system deficiencies. Potential improvements could include:

- New rail lines, busways, or bus lanes (on exclusive right of way);
- Bus bypass ramps for preferential treatment of buses;

- Fleet expansion;
- Vehicle replacement/upgrades;
- Park-and-ride lots;
- New, expanded, or improved transit stations (intermodal facilities);
- Paratransit services; and,
- Increased transit security.

The main key to success in implementing any of these strategies is a thorough study and understanding of the complicated issues which affect the use of non-automobile modes. It is also important to evaluate the entire trip, from origin to destination, when determining the appropriate strategy for shifting vehicle trips away from the personal vehicle. For example, land use densities affect the ability to provide competitive transit travel times at attractive costs. In turn, outside factors, such as parking costs, can determine what is considered an attractive cost for transit service. Good intermodal connections are crucial to providing competitive travel times. These transfers should be efficient and often require coordination between the various modes accessing intermodal facilities to minimize transfer times. It is also important to consider the pedestrian element of any trip to achieve the complete evaluation of the entire trip, from origin to destination. The convenience of alternatives is important, such as the proximity / access of transfer points and the reliability of the system. Finally, transit security should not be overlooked (as required originally by ISTEA) as an important factor which has a direct impact on travelers' decisions to use alternative modes of travel.

Public Transit Operational Improvements

Like capital improvements, operational improvements to the transit system can increase the demand for transit, which reduces the number of vehicles on the road. Operational improvements can be implemented on specific routes or within transit corridors, although regional operational improvements are commonly developed. Some strategies are:

- Increases in service frequency;
- Longer operating hours;
- Improvements in service quality;
- Additional bus routes;
- Restructured or extended bus lines;
- Traffic signal preemption;
- Fare reductions;
- Improvement of coordination and transfers between systems and routes;
- Improved marketing of transit; and,
- Transit passenger information systems.

Several of the operational improvements require a reallocation of resources to allow for increased service frequencies, hours of operation, additional routes, extensions of current routes, or even farebox reductions on routes. To ensure that the reallocation is justified, it

6.7 Stakeholder and Public Input

Based on input received at team meetings, public involvement summaries of public comments, a number of deficiencies were identified for the transportation network. The following list is a summary of comments received by the public in regards to the LRTP for Columbia County:

- Grovetown is growing fast, please don't forget the little towns;
- Priority on widening SR 104 and greater connectivity in Evans;
- Speed up the SR 104 Widening Projects;
- Turn lanes needed in front of Evans Towne Center;
- Additional turn lanes needed on Washington Road;
- Dangerous intersections:
    - Old Evans Road and Washington Road
    - Evans to Locks Road and N Belair Road
    - North Belair Road and Ronald Reagan Drive
- Residential housing concerns for widening Flowing Wells Road;
- Widen North Belair Road;
- Build turn lanes on Washington Road from Flowing Wells Road to Gibbs Road or even Halali Farm Road;
- Reconstruct Bobby Jones Highway and Washington Road;
- Stop building in the County;
- Powell Church Road needs to be paved;
- Current paratransit service is inadequate to meet County needs;
- Wider shoulders and bike lanes along secondary roads; and,
- County lacks sidewalks and crosswalks.

is important to conduct studies to determine the impact on ridership and the financial implications of the changes. These studies should include the consideration and potential implementation of the keys to success identified for the various strategies.

As identified above, it is important for alternative modes to provide competitive travel times. One way to accomplish this is by providing preferential treatment to transit vehicles using traffic signal preemption. This strategy requires multi-agency coordination and support, as well as planning and impact studies required to build this support.

One of the biggest keys to success for any of the improvement strategies is effectively communicating the benefits to the public. This can take place through marketing, using public and media education and outreach. Another tool is the use of transit information systems to better communicate the services provided and increase the convenience to the user.

Advanced Public Transportation Systems

Advanced Public Transportation Systems (APTS) are a type of Intelligent Transportation System (ITS), and include coordinated operational strategies implemented through technology. Intelligent bus stops and advanced mode choice systems can be used to provide up-to-date travel information to transit patrons.

As with any new technology, its effectiveness often hinges on public education and outreach to create user-friendly systems. To be effective, these information systems should provide data on multiple factors which affect the trip making decision. This typically requires multi-agency coordination to identify traffic conditions created by incidents, or just the current extent of congestion. Elements may include:

- *Travel Planning* - Pre-trip multi-modal travel information and ride-matching services can help travelers determine their optimal mode choice, departure time, and route before their trips.
- *Traveler Information* - Real-time information to guide travelers during trips includes advisory services (to warn of traffic or transit congestion or delays), route guidance systems, and traveler services information.

Non-Motorized Modes

In many areas, walking and bicycling are a viable alternative to vehicle use. In some cases, demand for these non-traditional modes can be increased by improving the transportation system to better accommodate pedestrians and bicyclists. The scale of these measures ranges from a regional approach (i.e., land use strategies) to facility-specific improvements (i.e., bicycle paths). Strategies that can be used include:

- New pedestrian and bicycle facilities;

- Improved facilities (safety, aesthetic, or travel time improvements); and,
- Bicycle storage systems can be installed at transit terminals, on transit vehicles and at work sites.

The keys to these types of improvements include adequate planning to ensure the facilities are effectively implemented within the overall land use plan and transportation system, and public education and outreach to ensure the implemented improvements are consistent with public desires. Often, multi-agency coordination is required to achieve the level of planning needed to fully integrate these strategies within the highway and transit systems.

Parking Management

One aspect of transportation demand management which is effective in shifting automobile travel to other modes is parking management. These strategies can include establishing maximum limits on the total number of spaces in a given area or for each employer, and increased parking charges (which may be reduced or eliminated for carpool/vanpool users).

This can be a very controversial subject and requires a thorough study of the full impacts and implications of alternative strategies. Public education and outreach are important to build consensus between property owners, businesses and employees. Multi-agency coordination is also required to implement, monitor and enforce the management strategies.

8.1.3 Level Three Strategies

The third level includes actions which attempt to place the trips not addressed in Levels One and Two into high occupancy vehicles (HOVs). This can be accomplished through various strategies which encourage HOV use and certain types of transportation demand management.

The key to success with HOV strategies is a holistic approach which considers how to aggregate HOV riders at the residential trip end, how to provide preferential treatment of the line-haul portion of the trip (in terms of time and/or cost savings), preferential treatment on the work trip end (i.e. parking availability, location and costs), as well as flexibility (i.e. guaranteed rides home). Thus, strategies in this level, if constructed into packages, will be more successful than if independently evaluated and implemented.

High Occupancy Vehicle (HOV)

High occupancy vehicle (HOV) facilities are designed to increase person throughput by increasing vehicle occupancies on a facility or in a corridor. Incorporation of HOV elements has generally been encouraged in recent policy statements in the U.S., although conversion of mixed-flow facilities to HOV use is much less popular. Even though most

HOV measures are applied to specific facilities, strategies to support HOV use must occur throughout a transportation corridor to be effective. Measures to encourage HOV use include:

- HOV lanes (lanes on a mixed flow roadway or a dedicated facility);
- HOV signal priority;
- HOV access priority (including queue bypasses at ramp meters, queue jump lanes at arterial signals);
- HOV toll savings;
- Park-and-ride lots;
- Guaranteed ride home programs; and,
- Employer trip reduction ordinances.

The implementation of HOV lanes requires extensive planning on a regional level and at the corridor level. Multi-agency cooperation (i.e. local governments, the Department of Transportation) is typically beneficial. This helps to maximize the effectiveness of the system, by coordinating with transit service and incorporating transit within the HOV system. Public education and marketing campaigns are also effective in building public acceptance and support for HOV travel.

Technical strategies to complement and support HOV travel, such as priority treatments and park-and-ride lots, should be based on sound engineering criteria, and should incorporate multi-agency cooperation.

Guaranteed ride home programs are effective at eliminating barriers to carpooling and can be very effective in the public's acceptance of ridesharing. An effective program needs public education and marketing of the services. As with any strategy that affects employees, high level employer support is very beneficial. Efficient and reliable administration of the program is also critical.

Employer trip reduction ordinances can be used to shift trips from SOVs to higher occupancy vehicles. It is important that the appropriate areas are covered by the ordinances and that flexibility is provided in the ordinance to accomplish the intended purposes. This strategy also requires ongoing oversight and enforcement.

Rideshare Matching Services

A transportation demand management strategy which is effective at shifting trips to higher occupancy vehicles includes providing ride share matching services. This strategy needs effective public education and marketing campaigns to stir interest. Rideshare matching services can be provided by existing agencies, or a new agency, such as a Transportation Management Organization. In addition, a common characteristic of successful ride sharing programs is high level employer support. This typically includes

effective communication of the programs to employees as well as preferential treatment for ridesharers, such as special parking spaces and/or rates.

Vanpooling Programs

Another transportation demand management strategy which can be effective at shifting trips to higher occupancy vehicles is the provision of vanpooling programs. These programs are often linked to rideshare matching services, as they both require the same types of information, public education and marketing. As with rideshare matching, high level employer support is important for the program to be successful. This includes preferential treatment for vanpools, such as special parking spaces and/or rates. Vanpool programs typically require a seed agency to provide the initial financial support for the van purchase; however, they can be self supporting. One potential fatal flaw to avoid is to ensure there is adequate parking clearance for the vans -- many parking structures cannot accommodate larger vans.

8.1.4 Level Four Strategies

Despite the best possible results from strategies in the first three levels, a significant portion of trips in Columbia County will likely remain via the automobile. Thus, the fourth level includes actions to optimize the existing highway system's operation for these residual automobile trips, whether HOV or SOV. This can be accomplished through traffic operational improvements and management, access management and intelligent transportation systems (ITS).

Traffic Operational Improvements

Improvements in traffic operations are designed to allow more effective management of the supply and use of existing roadway facilities. These improvements can increase effective capacity by optimizing traffic operations, especially in recurring congestion conditions. Although some of these strategies may involve the construction of additional lanes, this category encompasses improvements intended to help "optimize" existing capacity on the road system, as opposed to "adding" new capacity. Depending on the specific strategy, traffic operations improvements can be appropriate for a region, corridor, or specific facility. Some strategies can include:

- Intersection geometric improvements, such as minor widenings to increase turning movement capacity, restriping, and channelization;
- Intersection turn restrictions to eliminate conflicting movements;
- Traffic signal improvements, such as adjustments to signal timing and phasing, and the installation and maintenance of actuated system components (i.e., loops and controllers);

- Traffic control centers, including coordinated signal systems on arterials, and regional control centers with communication systems to interconnected signal systems;
- Advanced traffic surveillance and control centers allow monitoring, dynamic updates to signal systems, and coordinated traffic signal control and can be used to support incident management and traveler information activities;
- Roadway widening, including auxiliary lanes, passing lanes, widened shoulders, and reversible lanes; and,
- Truck restrictions to increase roadway capacity.

The main keys to success for each of these strategies is through engineering studies to identify the appropriate strategy, and the application of appropriate engineering criteria in the design of the improvements. Another important factor is adequate maintenance of traffic signals and loops to ensure the system operates efficiently. Some of these strategies, such as turn and truck restrictions, require public education and outreach.

Access Management

These strategies are designed to improve arterial flow by controlling access to and from arterial roadways. The Georgia Department of Transportation (GDOT) has developed standards which govern road design and driveway connections. In general, these measures are appropriate for application in Columbia County. However, local governments may wish to enforce more strict access management criteria through the site plan review process. Access management strategies can be used to plan for:

- Driveway control (residential and business);
- Median control; and,
- Frontage roads.

According to GDOT, raised medians increase the capacity of the roadway, reduce accidents, lower congestion, provide pedestrian refuge and often save lives. They may also be landscaped to beautify corridors and may become focal points for community landscaping efforts.

Each of these strategies requires the appropriate application of accepted engineering criteria. For new developments, this access control can be implemented during the permitting process. Retrofitting existing roadways typically requires studies to identify the impact of proposed changes and the identification of alternate access opportunities. Public outreach and education can be beneficial when implementing access control, with special attention placed on property directly impacted.

Intelligent Transportation Systems (ITS)

Intelligent Transportation Systems (ITS) include coordinated operational strategies implemented through technology. These systems can be applied to many of the strategies described above, especially in the areas of traffic operations, transit operations, and incident management. In addition, ITS can be applied throughout a region, along a transportation corridor, or on a specific facility. Samples of ITS effective in improving highway operations include:

- Automated toll collection systems to eliminate congestion and delays at toll booths;
- Advanced Traveler Information Systems (ATIS), which may include:
  - *Travel Planning* - Pre-trip multi-modal travel information and ride matching services can help travelers determine their optimal mode choice, departure time, and route before their trips;
  - *Traveler Information* - Real-time information to guide travelers during trips includes advisory services (to warn of traffic or transit congestion or delays), route guidance systems, and traveler services information;
- Commercial Vehicle Operations (CVO) include weigh station pre-clearance, automated safety inspections, on-board safety monitoring, and commercial fleet management; and,
- Advanced Vehicle Control Systems (AVCS) are being researched to assess the viability of technology that could greatly enhance roadway capacity and safety, including systems for longitudinal collision avoidance, lateral collision avoidance, intersection crash warning and control, vision enhancement, impairment alert, and fully automated vehicles.

One of the keys to success for implementing ITS strategies is the availability of affordable, proven technology. Public outreach and education are also important when implementing new technologies. Some ITS strategies, such as advanced traveler information systems and commercial vehicle operations require multi-agency coordination.

8.1.5 Level Five Strategies

The fifth level includes strategies to increase the capacity of the highway system by providing additional general purpose lanes.

Addition of General Purpose Lanes

General purpose lanes may be used by all vehicular traffic modes (i.e., SOVs, HOVs, transit, and trucks). The addition of general purpose lanes may include the addition of lanes to an existing facility or the construction of a new facility. These infrastructure improvements may be the best approach to congestion management in some cases, as

long as appropriate elements of the other strategies are incorporated into the design and operation of the new or expanded facility. It should also be noted that several measures that would increase the number of general purpose lane miles are also identified under traffic operational improvements (Level Four). The improvements in that section generally refer to smaller scale additions (i.e., turn lanes) or those for specific purposes (i.e., passing lanes).

8.2 Strategy Screening

With such an extensive list of potential strategies identified and documented in Section 8.1, it is desirable to perform an initial screening to determine which strategies are applicable for Columbia County. This screening analysis will be followed by a more detailed corridor evaluation of strategies.

This section presents a list of questions that have been identified for each strategy to determine which strategies could possibly be appropriate for a given application in Columbia County. Generally, each question does not require an affirmative answer to justify additional analysis; however, the more affirmative answers to multiple questions usually indicates a higher likelihood of application.

The screening questions are presented in the same five tiered hierarchy presented in the previous section. Unless otherwise noted, affirmative answers to the screening questions imply the strategy is potentially applicable. While it is not required to consider the strategies in order (i.e. beginning with Level One, then Two, Three, Four and finally Five), this progression will ensure all reasonable strategies are considered. Specific answers to each of the screening questions are not required. They are to serve only as a guide to assist in the identification of potentially effective strategies.

8.2.1 Level One Strategies

The first level includes actions which decrease the need for making the trip, such as growth management, the development of activity centers, congestion pricing and also certain types of transportation demand management. Table 8.2.1 summarizes the screening questions for this first tier of strategies. Many questions are related to existing and future development levels, as well as existing travel characteristics. Level one strategies which may be appropriate for Columbia County include various growth management / activity center strategies and telecommuting.

Table 8.2.1
Level One Strategy Screen

Screening Questions	Result
GROWTH MANAGEMENT/ACTIVITY CENTERS	
Land use policies/ regulations 1. Is significant land available for development? 2. Is projected population and/or employment growth high? 3. Has the County designated corridors for redevelopment or growth area? 4. Is the County's SOV share for work trips high? 5. Does the County pass the transit enhancement/ expansion criteria? 7. Will alternative travel modes be available within the County?	**Strategy is applicable.** Much of the County is currently undeveloped. At the time of this study several large parcels are for sale zoned residential and it is anticipated more commercial development will occur through the horizon year of the study.
Design standards 1. Is commercial office space being developed in the County? 2. Are there pending building permits in the County? (Also see land use policies/regulations above.) 3. Are there Subdivision/Development Codes with sidewalks required for new development? 4. Are there Mixed Use zoning designations in the Zoning and Land Use Codes?	**Strategy is applicable.** Redevelopment efforts should include design standards to maintain the character of the County
Locations of jobs and housing 1. Is there a large imbalance between jobs and housing? 2. Has the County been designated as a redevelopment or growth area?	**Strategy is applicable.** New residential and commercial development is anticipated.
CONGESTION PRICING	
Road user fees 1. Is the v/c ratio on at least 70% of the County's freeway/ arterial lane miles greater than 1.1 (or CMS threshold)? 2. Is answer to question 1 still affirmative if proposed roadway for congestion pricing is excluded? 3. Is a limited access facility available in County? 4. Are alternative travel modes available within County? 5. Will revenues be used for transportation improvement projects? 6. Are tolls on the facility politically acceptable?	**Strategy is not applicable.** Road user fees cannot be implemented.
Parking fees 1. Are there primarily commercial or retail land uses in the congested area? 2. Are alternative travel modes available within the County?	**Strategy is not applicable**. Existing development is mostly residential and will not support increases in parking costs.

Screening Questions	Result
TRANSPORTATION DEMAND MANAGEMENT	
Telecommuting 1. Is the type of employment at activity center/downtown suitable for telecommuting? 2. Is public agency participation likely?	**Strategy is applicable**.
Trip reduction ordinances 1. See Employee Trip Reduction Ordinances strategies in Level 3.	**Strategy is not applicable**. Employment densities are not high enough to sustain trip reduction ordinances.

8.2.2 Level Two Strategies

The second level includes actions which attempt to place the trips not addressed in Level One into transit or other non-auto modes. This level of strategies includes capital investments in public transit, public transit operational improvements, intelligent transportation systems, methods to encourage the use of non-traditional modes and certain types of transportation demand management. Table 8.2.2 summarizes the screening questions for this second tier of strategies. Many of these questions relate to development densities, existing transit service and use, travel times and the availability of modal choices.

Level Two strategies which may be appropriate for Columbia County include: further development of transit services, park and ride facilities, and bicycle and pedestrian facilities.

Table 8.2.2
Level Two Strategy Screen

Screening Questions	Result
PUBLIC TRANSIT CAPITAL IMPROVEMENTS	
Exclusive Right of Way (Rapid Rail) 1. Is the County's **net** residential density (the number of dwelling units divided by the area available for residential development) at least 12 d.u./acre, or alternatively, is the gross population density at least 8,600/square mile? 2. Does the County's major employment area (downtown, activity center) have at least 50 million square feet of non-residential floor space? 3. Does the County's major employment area (downtown, activity center) have at least 70,000 employees? 4. Does the Country's major employment area (downtown, activity center) have an employment density of at least 15,000/square mile?	**Strategy is not applicable**. The population and development density is not sufficient for this strategy.
Exclusive Right of Way (Commuter Rail) 1. Is the County's **net** residential density at least 1 d.u./acre, or alternatively, is the gross population density at least 350/square mile? 2. Does the County's major employment area (downtown, activity center) have at least 75 million square feet of non-residential floor space? 3. Does the County's major employment area (downtown, activity center) have at least 150,000 employees? 4. Does the County's major employment area (downtown, activity center) have an employment density of at least 15,000/square mile?	**Strategy is not applicable**. The population and employment density is not sufficient for this strategy.

Screening Questions	Result
Exclusive Right of Way (Busways) 1. Is the County's **net** residential density at least 3 d.u./acre, or alternatively, is the gross population density at least 1,900/square mile? 2. Does the County's major employment area (downtown, activity center) have at least 20 million square feet of non-residential floor space? 3. Does the County's major employment area (downtown, activity center) have at least 42,000 employees? 4. Does the County's major employment area (downtown, activity center) have an employment density of at least 10,000/square mile? 5. Does the County have any corridors with a v/c of at least 0.80 with headways of 4 minutes or less in the peak hour?	**Strategy is not applicable**. The residential and employment development density is not sufficient for this strategy.
Exclusive Right of Way (Bus Lanes) 1. Does the County have any corridors with at least 8 scheduled buses in the peak hour? 2. If the answer to question 1 is yes, then do any of these sections have peak hour auto volumes of at least 2,000 vehicles per lane? 3. If the answer to question 2 is yes, then do any of these sections meet the following threshold: $q_b \geq \frac{q_a}{N-1} X$ where q_A and q_B are hourly volumes of autos and buses, respectively; N is the total number of lanes per direction; and X is the ratio of average auto to bus occupancies?	**Strategy is not applicable**. Bus Services are currently not provided in the County (with the exception of a single transit line from Augusta Public Transit) nor are future services anticipated.
Bus Bypass Ramps 1. Does the County pass the exclusive right of way busway screen? 2. Does the County have any exclusive busway sections? If yes, then go to question 5. 3. Does the County have any HOV lane sections? If yes, are there 15 or more buses scheduled on any of these sections in the peak hour? 4. Does the County pass the HOV lane screen? 5. Does the County have any freeway sections with v/c of at least 0.80 and 15 or more buses scheduled in the peak hour?	**Strategy is not applicable**. Exclusive busways and HOV lanes are not available.
Fleet expansion 1. Does the County pass the service enhancement/expansion screen identified later in this table?	**Strategy is appropriate.** As development continues to occur within the County this strategy could potentially become a stronger option.

Screening Questions	Result
Transit park and ride facilities 1. Does transit service exist in the County? 2. Is there at least one express bus in the County with a one-way trip length of at least 8 miles? 3. Is the County's HOV mode share greater than 15% for work trips? 4. Is there rapid rail, light rail or commuter rail service in the County? 5. Does the County pass the HOV lane, rapid rail, light rail, commuter rail or exclusive right of way busway screens?	**Strategy is appropriate.** As development continues to occur within the County this strategy could potentially become a stronger option. These park and ride lots could potentially service vanpools or carpools into Augusta.
Other intermodal facilities 1. Is there any location in the County where there is not an existing intermodal facility and at least two of the following modes in the County converge: rapid rail, light rail, commuter rail, express bus, intercity bus, intercity rail or local bus?	**Strategy is not appropriate**. No other intermodal facilities in the study area.
Paratransit services 1. Are there any areas in the County not currently served by paratransit? 2. Are requests for paratransit being denied because of capacity restrictions?	**Strategy is appropriate.** As development continues to occur within the County this strategy could potentially become a stronger option and public comment suggests that on demand transit capacity is insuffic ient.
Increased transit security 1. Has the number of crimes related to transit service, or security-related complaints received by the transit agency serving the County, increased in each of the last two years?	**Strategy is not appropriate**. Transit does not currently serve a majority of the County.
PUBLIC TRANSIT OPERATIONAL IMPROVEMENTS	
Service enhancement/Service expansion 1. Are there any routes for which the peak hour load factor is greater than 0.8? 2. Is the population density of any zone or census tract in the County greater than 3150/square mile or the percentage of low income residents in the County greater than 20%?	**Strategy is appropriate.** The bus transit system should be monitored to determine the appropriate time for service enhancement – vanpooling is a more likely option.
Traffic signal preemption 1. Does the County have transit service? 2. Are there any routes for which the peak hour load factor is greater than 0.8? 3. Is the frequency of service for any of those routes > 6/hr?	**Strategy is not appropriate.**

Screening Questions	Result
Fare reductions 1. Is transit mode split for work trips in the County greater than 2%? 2. Is the average population density in zones adjacent to these routes greater than 1575/square mile or the percentage of poor in these zones greater than 10%?	**Strategy is not appropriate.**
Transit coordination 1. Are there at least 2 transit agencies/operators providing service within the County? 2. If yes, are fare payment methods or the transit schedules coordinated? (Negative answer implies potential application.) 3. Are there at least 4 possible transfers within the County?	**Strategy is not appropriate.** Currently only one major transit service with no other major modes needed or planned.
Transit marketing 1. Is there at least one activity center with more than 500 employees in the County accessible by transit? 2. Is difference in travel time between competing modes < 30%? 3. Can the transit system handle more patrons?	**Strategy is appropriate.** This effort would focus on park and ride lots as well as vanpooling.
ADVANCED PUBLIC TRANSPORTATION SYSTEMS	
Intelligent bus stops 1. Is the average population density in any of the zones within 0.25 miles of the route >1,575/square mile or percentage of poor in these zones > 10%? 2. If yes, is the load factor on any route within the County < 0.8?	**Strategy is not appropriate.** Transit does not currently serve the County (with the exception of one Augusta Public Transit route).
Advanced mode choice system 1. Is the difference in travel time between transit & other competing modes < 30%? 2. If yes, do more than 40% of the links on any route have peak hour V/C≥ 0.8?	**Strategy is not appropriate.**
ENCOURAGE THE USE OF NON-MOTORIZED MODES	
Bicycle facilities 1. Does the County have any jurisdictions with a bicycle plan? 2. Are at least 15% of the County's work trips fewer than 5 miles or 10 minutes in length? 3. Does the County have any rail or express bus service? 4. Is the County's net residential density at least 4.5 d.u./acre, or alternatively, is the gross population density at least 3,150/square mile? 5. Is the County's employment density at least 4,000/square mile? 6. Does the County have a college campus?	**Strategy is appropriate.** Planning documents as well as public workshops indicate that non-motorized transportation is a key issue for residents throughout the County. Priority was placed on areas within one mile of activity centers.

Screening Questions	Result
Bicycle storage systems 1. Does the County have any exclusive right of way bicycle facilities? 2. Does the County pass the bicycle facilities screen? 3. Is the County's bicycle mode share at least 0.5% for work trips?	**Strategy is not appropriate.**
Pedestrian facilities 1. Does the County have any rail or fixed-route bus service? 2. Is the County's net residential density at least 4.5 d.u./acre, or alternatively, is the gross population density at least 3,150/square mile? 3. Is the County's employment density at least 4,000/square mile?	**Strategy is appropriate.** Adequate pedestrian facilities should be provided, linking neighborhoods and other key origins and destinations. Priority was placed on areas within one mile of activity centers.
TRANSPORTATION DEMAND MANAGEMENT	
Parking management 1. Is there any kind of transit service in the County? 2. Are there any HOV lanes in the County or does the County pass the HOV lane screen? 3. Are there any park-and-ride lots in the County or does the County pass either the HOV or transit park-and-ride lot screen?	**Strategy is not appropriate**. Existing development and parking supply are not conducive to being managed as a TDM strategy.

8.2.3 Level Three Strategies

The third level includes actions which attempt to place the trips into high occupancy vehicles (HOV) and includes various strategies which encourage HOV use and certain types of transportation demand management. Table 8.2.3 summarizes the screening questions for this third tier of strategies. Most of these questions relate to existing travel characteristics.

Level Three Strategies which may be appropriate for Columbia County include: transportation demand management strategies.

Table 8.2.3
Level Three Strategy Screen

Screening Questions	Result
ENCOURAGE HIGH OCCUPANCY VEHICLE USE	
HOV lanes 1. Are lane additions planned or under consideration for any freeway segments that already have three or more mixed-flow lanes in one direction? 2. Are there any freeway segments of at least three miles with at least 70% of lane miles congested (v/c > 0.9)? 3. Are there any arterial segments of at least two miles with at least 70% of lane miles congested (v/c > 0.9)? 4. Are there 10 or more buses scheduled in the peak hour for a single facility in the Corridor? 5. Is there employment of 20,000 or more in the County's chief activity center? 6. Is the County's HOV mode share greater than 15% for work trips? 7. Does the County contain freeway, expressway, or rural principal arterial facilities that connect a residential area to an employment center?	**Strategy is not appropriate**. Existing and planned roadway system is not conducive to HOV operations.
HOV ramp bypass lanes 1. Does the County pass the HOV lane screen? 2. Does the County contain other HOV incentives, such as HOV lanes or HOV toll discounts? 3. Is there ramp-metering in the County?	**Strategy is not appropriate**. No HOV facilities available.

Screening Questions	Result
HOV toll savings 1. Does the County have a toll facility? 2. Is the County's HOV mode share greater than 15% for work trips?	**Strategy is not appropriate**. No toll facilities available.
HOV park-and-ride lots 1. Does the County pass the HOV lane screen? 2. Does the County contain other HOV incentives, such as HOV lanes or HOV toll discounts? 3. If park and ride lots exist along the County, is utilization greater than 50%?	**Strategy is appropriate**. While the County is not conducive of HOV facilities, park and ride lots could benefit users traveling to and from Augusta employment centers making use of vanpools and carpools.
Guaranteed ride home programs 1. Does the County pass the HOV lane screen? 2. Does the County contain other HOV incentives, such as HOV lanes or HOV toll discounts? 3. Are rideshare matching services available or recommended below?	**Strategy is appropriate**. With the recommendations for vanpooling and ride matching services, this strategy becomes necessary.
Employer trip reduction ordinances 1. Is the County already subject to an employer trip reduction ordinance? 2. Do 20% or more of employees in the County work for employers of 100 or more on-site employees? 3. Is the County's drive alone mode share at least 60% for work trips? 4. Is the County's transit mode share at least 2% for work trips?	**Strategy is not appropriate**. Existing employment characteristics and redevelopment efforts are not conducive to this strategy.
TRANSPORTATION DEMAND MANAGEMENT	
Ride share matching services 1. Does the County pass the parking management screen? 2. Are at least 60% of the County's work trips at least 9 miles?	**Strategy is appropriate**. Long work commutes to Augusta could benefit from ride matching.
Vanpooling programs 1. Does the County pass the parking management screen? 2. Do 20% or more of employees in the County work for employers of 100 or more on-site employees? 3. Are at least 60% of the County's work trips at least 9 miles?	**Strategy is appropriate**. Long work commutes and an older driver population makes vanpooling a strong strategy to address transportation needs.

8.2.4 Level Four Strategies

The fourth level includes actions to optimize the existing highway system's operation for automobile trips, whether HOV or SOV, and includes traffic operational improvements and management, access management and intelligent transportation systems. Table 8.2.4 summarizes the screening questions for this fourth tier of strategies. Many of these questions relate to existing traffic characteristics.

Level Four Strategies which may be appropriate for Columbia County include: various traffic operational improvements, truck restrictions, access management and ITS applications.

Table 8.2.4
Level Four Strategy Screen

Screening Questions	Result
TRAFFIC OPERATIONAL IMPROVEMENTS	
Intersection widening 1. Is the deficiency isolated on a specific facility? 2. Is the left turn volume on any shared left/through lane greater than 100 vehicles per hour? 3. Is the left turn volume on any single left turn lane greater than 300 vehicles per hour? 4. Is the right turn volume on any shared right/through lane greater than 300 vehicles per hour?	**Strategy is appropriate.** Several intersections have been identified as needing additional turn lanes to improve operation.
Channelization 1. Is the right turn volume at an intersection greater than 500 vehicles per hour? 2. Is there an adjacent signalized intersection within 300 feet? 3. Is the intersection skewed by less than 75 degrees? 4. Does a designated truck route turn at the intersection? 5. Is there a history of accidents due to wrong-way movements?	**Strategy is appropriate.** Channelization could improve intersection operation and safety.
Intersection turn restrictions 1. Is the deficiency isolated on a specific facility? 2. Can the intersection be widened? 3. Can the restricted movement (usually a left turn) be accomplished using other routes? 4. Is there significant conflicts between pedestrians and turning vehicles?	**Strategy is appropriate**. Some land uses have multiple access/egress points – turn restrictions would reduce conflict points.
One-Way Pairs 1. Is parallel facility available within one or two blocks? 2. Are sufficient number of cross streets available to permit traffic circulation?	**Strategy is not appropriate**.

Screening Questions	Result
Signalization improvements (including maintenance) 1. Is the deficiency isolated on a specific facility? 2. Have the signal timings been updated within the last five years? (Negative answer implies potential application.) 3. Is the signal inspected regularly? (Negative answer implies potential application.) 4. Is the left turn volume on any single left turn lane without signal protection greater than 100 vehicles per hour? 5. Does a field inspection, or capacity analysis, identify a need for re-timing?	**Strategy is appropriate.** Capacity analyses have identified a number of intersections and movements operating at an unacceptable level of service.
Traffic control centers 1. Is the geographic scale of the deficiency either regional or County? 2. Are incidents a major cause of congestion? 3. Are alternate routes available within the County? 4. Do "special events" (i.e. sports events, concerts, etc.) regularly create congestion?	**Strategy is appropriate**.
Computerized signal systems 1. On major arterials, are all signals within one half mile of adjacent signals interconnected? (Negative answer implies potential application.) 2. Have the timing patterns for existing system been reevaluated within the last five years? (Negative answer implies potential application.)	**Strategy is appropriate**. System coordination at the sub-County level along with coordination with Augusta Richmond County could improve traffic flow.
Traffic surveillance & control systems 1. Does one or more facilities in a County experience significant congestion due to incidents, such as accidents? 2. Is ramp metering used, or planned to be implemented, on the facility? 3. Are congestion patterns irregular?	**Strategy is appropriate.** Most delay is not incident based.
Roadway widening 1. Are through lane widths less than 12 feet? 2. Does the facility have multiple driveway connections on sections where the speed limit is $\geq$ 45 mph? 3. Does a capacity analysis show a need for additional through lanes? 4. Is the congestion localized between two or three adjacent intersections?	**Strategy is appropriate.** Future capacity deficiencies show the need for additional lanes.

Screening Questions	Result
Truck restrictions 1. Are through lane widths less than 12 feet? 2. Is the percentage of trucks during the peak hours greater than 10 percent? 3. Is there an acceptable alternate truck route available? 4. Do trucks block travel lanes when they load/unload?	**Strategy is appropriate.** Several heavy vehicle trip generators exist in the County. Future development will dictate the need to consider limiting truck travel within the County
ACCESS MANAGEMENT	
Driveway control 1. Does the facility have multiple driveway connections on sections where the speed limit is $\geq$ 45 mph? 2. Do accident reports reflect a high incidence of rear end and/or right angle collisions near driveways?	**Strategy is appropriate.** The roadway should generally conform to GDOT access management standards.
Median control 1. Does the facility have more than two lanes, with a speed limit $\geq$ 45 mph, and no median? 2. Are existing median openings spaced less than one fourth mile apart? 3. Do accident reports reflect a high incidence of right angle collisions near driveways? 4. Are injury or fatality rates higher than the statewide average? 5. Are left turning movements a significant source of conflict and accidents? 6. If a state route, do segments meet GDOT standards for raised medians?	**Strategy is appropriate.** The roadway should generally conform to GDOT access management standards. This strategy is strongly recommended for facilities with limited right of way, insufficient capacity, and high numbers of mid-block turning crashes.
Frontage roads 1. Does the facility have multiple driveway connections on sections where the speed limit is $\geq$ 45 mph? 2. Do accident reports reflect a high incidence of rear end and/or right angle collisions near driveways? 3. Is it desirable to convert an existing facility from no, or limited, access control to full access control? 4. Is adequate right of way available for constructing the frontage roads?	**Strategy is appropriate**. Lack of available right of way may preclude this strategy in many areas of the County.
INTELLIGENT TRANSPORTATION SYSTEMS	
Automated toll collection 1. Is deficient facility currently tolled? 2. Are the number of toll booths sufficient to service the demand without creating long queues? (Negative answer implies potential application.) 3. Is the percentage of trucks during the peak hours greater than 10 percent?	**Strategy is not appropriate**. No toll facilities available.

Screening Questions	Result
Advanced traveler information systems 1. Are there alternative modes of travel available in the region or County? 2. Does the region or County experience a high level of congestion? 3. Are there alternative routes available?	**Strategy is appropriate.** Changeable message signs could be used to sign motorists on/off major corridors within the County based on incidents or congestion.
Commercial Vehicle Operations 1. Does the congested facility include a truck weigh station? 2. Are hazardous materials prohibited on the congested facility?	**Strategy is not appropriate**.
Advanced Vehicle Control Systems This strategy is currently unavailable for implementation.	**Strategy is not appropriate.**

8.2.5 Level Five Strategies

The fifth level includes strategies to increase the capacity of the highway system by providing additional general purpose lanes. Table 8.2.5 summarizes the screening questions for this tier of strategies. These questions are largely based on volume to capacity ratios, with a check for other planned improvements in the County that may address the deficiency. Based on this screen, adding general purpose lanes to corridor is an appropriate strategy.

Table 8.2.5
Level Five Strategy Screen

Screening Questions	Result
ADDITION OF GENERAL PURPOSE LANES	
Freeway lanes 1. Are there any freeway segments of at least 3 miles with at least 70% of lane miles congested (v/c > 0.9)? 2. Are there are any new freeways or freeway lane additions in approved regional transportation plans in the County?	**Strategy is appropriate**. Existing and future capacity deficiencies show the need for additional lanes.
Arterial lanes 1. Are there any arterial segments of at least 2 miles with at least 70% of lane miles congested (v/c > 0.9)? 2. Are there are any new arterials or arterial lane additions in approved regional transportation plans in the County?	**Strategy is appropriate.** Existing and future capacity deficiencies show the need for additional lanes.

8.3 Improvement Screening for Deficient Corridors

Based on this preliminary strategy screening analysis, the extensive list of almost sixty (60) strategies has been narrowed to thirty (30) strategies applicable to Columbia County. Further analysis was completed to identify how these strategies could be applied to the transportation system within Columbia County and the anticipated benefit to congested corridors.

8.3.1 Applicable Strategy Screening for the County

Table 8.3.1 presents a further screening of acceptable strategies for improving travel conditions within Columbia County. These strategies all address one or more deficiencies. However, many strategies are dependent on operating characteristics; land use patterns and densities; and community perceptions and desires that do not currently exist within the County, but are likely to exist when considering long term improvements (15 - 20 years). Mid term improvements for this study, through 2012, force the current analysis to focus on existing operating conditions and problems so that solutions can be implemented in the three to ten year range.

Table 8.3.1 documents acceptable strategies and further designates the most appropriate improvement strategies for improving traffic operations along the deficient corridors within Columbia County. Three terms are used to further describe applicable strategies for improving operation within Columbia County:

- **Near Term** - Strategies addressing existing operating deficiencies within the 2007 time frame.
- **Mid Term** - Strategies based on existing operating deficiencies and existing services but are contingent upon attainment of certain development thresholds that are likely to be reached but currently are not sufficient to warrant this strategy.
- **Long Term** - Strategies that address some aspect of existing operating deficiencies and make use of some existing services but are contingent upon development conditions and services that do not currently exist but are likely to exist in the future.

Table 8.3.1
Applicable Strategy Screening for the County

CMS Level (1-5)	Strategy	Screening
1	Land Use Policies / Regulations	Near Term
1	Design Standards	Near Term
1	Locations of Jobs and Housing	Near Term
1	Telecommuting	Near Term
2	Fleet Expansion	Mid Term
2	Transit Park and Ride Facilities	Mid Term
2	Paratransit	Mid Term
2	Service Enhancement / Expansion	Mid Term
2	Transit Marketing	Mid Term
2	Bicycle Facilities	Near Term
2	Pedestrian Facilities	Near Term
3	Park & Ride Lots	Mid Term
3	Guarantee Ride Home Program	Mid Term
3	Ride Share Matching Services	Mid Term
3	Vanpooling	Mid Term
4	Intersection Widening	Near Term/Mid Term
4	Channelization	Near Term/Mid Term
4	Intersection Turn Restrictions	Near Term/Mid Term
4	Signalization Improvements	Near Term/Mid Term
4	Traffic Control Center	Near Term/Mid Term
4	Computerized Signal System	Mid Term/Long Term
4	Traffic Surveillance and Control Systems	Mid Term
4	Roadway Widening	Near Term/Mid Term/Long Term
4	Truck Restrictions	Mid Term/Long Term
4	Driveway Control	Near Term
4	Median Control	Near Term
4	Frontage Roads	Near Term
4	Advanced Traveler Information	Mid Term/Long Term
5	Construct Freeway Lanes	Mid Term/Long Term
5	Construct Arterial Lanes	Near Term/Mid Term/Long Term

These strategies were carried forward and used to evaluate the deficient corridors in the County. Recommended improvements were developed for these deficient corridors as a result of this process. The following sections document the recommended improvements in detail, ultimately producing preferred improvements for the County's transportation system.

8.3.2 Deficient Corridor Screening

The improvements strategies documented in Table 8.3.1 were found applicable for Columbia County. Every strategy applicable to the County cannot be applied to each congested corridor segment. Consequently, these strategies were screened for each deficient corridor documented in Section 6.2 resulting in more specific strategies at the corridor level. Removing corridors that are not deficient during daily conditions reduced the list of congested corridors from Section 6.2. GDOT requires facilities to be deficient under daily operating conditions not just peak hour operating conditions to support implementation of capacity improvements.

As part of the analysis, the following corridors with existing 4-lane sections were identified as deficient for daily operating conditions:

- Belair Road;
- Bobby Jones Expressway; and,
- Washington Road.

Typically, this would result in identification of strategies for additional capacity. However, field review, public input and input from the County identified that capacity enhancements to these facilities would result in substantial impacts to the community and adjacent land uses. Consequently, strategies were identified to alleviate congestion along these facilities through enhancements to parallel corridors or through alternate modes.

Table 8.3.2 contains the screening results for the deficient corridors.

Table 8.3.2
Deficient Corridor Screening

Project Ref. No.	Facility	From	To	Level 1				Level 2							Level 3				Level 4											Level 5	
				Land Use	Design Standards	Jobs & Housing	Tele-commuting	Fleet Expansion	Transit Park & Ride	Para Transit	Service Enhancement	Transit Marketing	Bicycle Facilities	Pedestrian Facilities	Ride Share Matching	Van-pooling	Park & Ride Lots	Guarantee Ride Home Program	Intersection Widening	Channelization	Turn Restrictions	Signalization Improvements	Control Center	Computerized Signal System	Traffic Surveillance	Roadway Widening	Truck Restrictions	Driveway Control	Median Control	Frontage Roads	Advanced Traveler Info	Construct Freeway Lanes	Construct Arterial Lanes
Near Term Deficient Segments																															
1	Columbia Rd	Old Belair Rd	Belair Rd	✓		✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				✓
2	Flowing Wells Rd	I-20	Washington Rd			✓	✓						✓	✓					✓	✓	✓	✓	✓	✓		✓		✓	✓				✓
3	Fury's Ferry Rd	Hardy McManus Rd	Evans to Locks Rd			✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓			✓							✓
4	Gibbs Rd-Cox Rd-Owens Rd	Washington Rd	Washington Rd	✓	✓	✓	✓						✓	✓					✓	✓						✓		✓	✓				✓
5	Hereford Farm Rd	Belair Rd	Gibbs Rd	✓	✓	✓	✓						✓	✓					✓	✓	✓	✓		✓		✓	✓	✓	✓				✓
6	Horizon South Pkwy	I-20	Wrightsboro Rd	✓	✓	✓	✓			✓									✓	✓	✓	✓				✓		✓	✓	✓			✓
7	I-20 WB Off-Ramp	at Belair Rd, Lewiston Rd, and Appling Harlem Rd				✓	✓	✓	✓			✓			✓	✓	✓	✓	✓			✓			✓	✓					✓		
8	I-20 EB On-Ramp	at Belair Rd, Lewiston Rd, and Appling Harlem Rd				✓	✓	✓	✓			✓			✓	✓	✓	✓	✓			✓			✓	✓					✓		
9	I-20	Appling Harlem Rd	Belair Rd	✓		✓	✓	✓	✓			✓			✓	✓	✓	✓							✓						✓	✓	
10	Lewiston Rd	Columbia Rd	I-20	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	✓	✓				✓			✓	✓		✓	✓				✓
11	North Belair Rd	Fury's Ferry Rd	Washington Rd	✓	✓	✓	✓						✓	✓					✓	✓	✓	✓	✓	✓	✓	✓		✓	✓				✓
12	Old Evans Rd	Martinez Blvd	Washington Rd	✓	✓	✓	✓						✓	✓					✓	✓	✓		✓	✓		✓		✓	✓				✓
13	Old Evans Rd	Washington Rd	Old Petersburg Rd	✓	✓	✓	✓						✓	✓					✓	✓	✓		✓	✓		✓		✓	✓				✓
14	Washington Rd	William Few Pkwy	Belair Rd	✓	✓	✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				✓
15	William Few Pkwy Connector	William Few Pkwy	Hereford Farm Rd	✓	✓	✓	✓						✓	✓													✓	✓	✓				✓
16	William Few Pkwy Extension	Washington Rd	Hardy McManus Rd	✓	✓	✓	✓						✓	✓													✓	✓	✓				✓
17	Wrightsboro Rd	Reynolds Rd	Richmond County			✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓		✓				✓		✓	✓				✓
18	SR 47 SB	N of Ridge Rd	N of Keg Creek Dr			✓	✓														✓				✓							
Mid Term Deficient Segments																															
19	Columbia Rd	William Few Pkwy	Hereford Farm Rd	✓	✓	✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓					✓		✓	✓				✓
20	Hereford Farm Rd	Blanchard Rd	Gibbs Rd	✓	✓	✓	✓						✓	✓					✓	✓	✓	✓		✓		✓	✓	✓	✓				✓
21	Old Petersburg Rd	Old Evans Rd	Baston Rd			✓	✓						✓	✓					✓	✓			✓	✓		✓		✓	✓				✓
22	Washington Rd	Old Washington Rd	William Few Pkwy	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				✓
23	Wrightsboro Rd	Horizon South Pkwy	Reynolds Rd			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓				✓		✓	✓				✓
24	SR 47 NB	S of Washington Rd	N of Yelton Rd			✓	✓																			✓							
25	SR 47 NB/SB	N of Columbia Rd	N of I-20			✓	✓														✓					✓							
Long Term Deficient Segments																															
26	Appling Harlem Rd	Columbia Rd	Wrightsboro Rd	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	✓	✓								✓		✓	✓				✓
27	Columbia Rd	Hereford Farm Rd	Old Belair Rd	✓		✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓		✓	✓				✓
28	Hereford Farm Rd	Columbia Rd	Blanchard Rd	✓	✓	✓	✓						✓	✓					✓	✓	✓	✓		✓		✓	✓	✓	✓				✓
29	I-20	McDuffie County	Appling Harlem Rd	✓		✓	✓	✓	✓			✓			✓	✓	✓	✓							✓						✓	✓	
30	Washington Rd	Scotts Ferry Rd	Old Washington Rd	✓	✓	✓	✓	✓	✓	✓		✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓		✓	✓				✓
31	Wrightsboro Rd	Chamblin Rd	Horizon South Pkwy			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓				✓		✓	✓				✓
32	SR10/US78 Gordon Highway	Harlem Town	Wrightsboro Rd	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓			✓		✓	✓				✓

Level 2 Fleet Expansion - Mid and Long Term Express Transit Service considered possible for the major corridors I-20, Washington Rd, Wrightsboro Rd
Paratransit - Enhancements were recommended for state roads based on public comment.
Bicycle and Pedestrian - Improvements were recommended along corridors identified in the Bike-Ped Improvement Priority Areas
Level 3 Vanpooling - Considered possible for corridors with high numbers of trip origins due to residential development
Level 4 Signal and related improvements were considered candidates for corridors likely to be more developed in the existing and future scenarios.

8.3.3 Identification of Proposed Improvements for Deficient Corridors

In the previous section potential improvements strategies were documented for each of the deficient corridors. The next step was to establish a staging of when these improvements should take place (Near, Mid and Long Term). Typically most of these improvements will be candidates for a range of funding sources (local, county, state and federal). Generally, in order for Federal and State funding to be used to construct bicycle lanes or shoulders within the road widening or reconstruction project, the corridor should be designated in the Columbia County or ARTS Bicycle and Pedestrian Plan.

The following list documents the staging of the improvement strategies for each deficient corridor.

Near Term Deficient Corridors

- Columbia Rd (Old Belair Rd to Belair Rd)
  - Construct Bicycle and Pedestrian Facilities
  - Improve Signal Operations
  - Widen Intersections
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes
  - Provide Access Management (driveway and median control)

- Flowing Wells Rd (I-20 to Washington Rd)
  - Construct Bicycle and Pedestrian Facilities
  - Improve Signal Operations
  - Widen Intersections
  - Construct Additional Lanes
  - Provide Access Management (driveway and median control)

- Fury's Ferry Rd (Hardy McManus Rd to Evans to Locks Rd)
  - Construct Bicycle and Pedestrian Facilities
  - Improve Signal Operations
  - Widen Intersections
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes
  - Provide Access Management (driveway and median control)

- Gibbs Rd-Cox Rd-Owens Rd (Washington Rd to Washington Rd)
  - Establish Land Use and Design Regulations
  - Construct Bicycle and Pedestrian Facilities
  - Provide Driveway and Median Control
  - Widen Intersections
  - Construct Additional Lanes
  - Provide Access Management (driveway and median control)

- Hereford Farm Rd (Belair Rd to Gibbs Rd)
  - Establish Land Use and Design Regulations
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Widen Intersections

  - Construct Additional Lanes

- Horizon South Pkwy (I-20 to Wrightsboro Rd)
  - Establish Land Use and Design Regulations
  - Provide Access Management (driveway and median control)
  - Construct Frontage Roads
  - Improve Signal Operations
  - Widen Intersections
  - Construct Additional Lanes

- I-20 WB Off-Ramp (Belair Rd, Lewiston Rd, and Appling Harlem Rd)
  - Improve Signal Operations
  - Provide Park & Ride Lot
  - Advance Travel Information
  - Construct Additional Lanes

- I-20 EB On-Ramp (at Belair Rd, Lewiston Rd, and Appling Harlem Rd)
  - Improve Signal Operations
  - Provide Park & Ride Lot
  - Advance Travel Information
  - Construct Additional Lanes

- I-20 (Appling Harlem Rd to Belair Rd)
  - Traffic Surveillance
  - Provide Transit Services
  - Advance Travel Information
  - Construct Additional Lanes

- Lewiston Rd (Columbia Rd to I-20)
  - Establish Land Use and Design Regulations
  - Provide Access Management (driveway and median control)
  - Improve Signal Operations
  - Widen Intersections
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes
  - Provide Driveway and Median Control

- North Belair Rd (Fury's Ferry Rd to Washington Rd)
  - Establish Land Use and Design Regulations
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Intersection Widening
  - Computerized Signal System
  - Construct Additional Lanes

- Old Evans Rd (Martinez Blvd to Washington Rd)
  - Establish Land Use and Design Regulations
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Computerized Signal System and Control Center
  - Intersection Widening
  - Construct Additional Lanes

- Old Evans Rd (Washington Rd to Old Petersburg Rd)
  - Establish Land Use and Design Regulations
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Computerized Signal System and Control Center
  - Intersection Widening
  - Construct Additional Lanes

- Washington Rd (William Few Pkwy to Belair Rd)
  - Establish Land Use and Design Regulations
  - Provide Access Management (driveway and median control)
  - Computerized Signal System
  - Widen Intersections
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes

- William Few Pkwy Connector (William Few Pkwy to Hereford Farm Rd)
  - Establish Land Use and Design Regulations
  - Provide Access Management (driveway and median control)
  - Construct New Facility
  - Construct Bicycle and Pedestrian Facilities

- William Few Pkwy Extension (Washington Rd to Hardy McManus Rd)
  - Establish Land Use and Design Regulations
  - Provide Access Management (driveway and median control)
  - Construct New Facility
  - Construct Bicycle and Pedestrian Facilities

- Wrightsboro Rd (Reynolds Rd to Richmond County Boundary)
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Intersection Widening
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes

- SR 47 SB (N of Ridge Rd to N of Keg Creek Dr)
  - Construct Bicycle and Pedestrian Facilities
  - Construct Additional Lanes
  - Provide Access Management (driveway and median control)

Mid Term Deficient Corridors

- Columbia Rd (William Few Pkwy to Hereford Farm Rd)
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Widen Intersections
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes

- Hereford Farm Rd (Blanchard Rd to Gibbs Rd)
  - Establish Land Use and Design Regulations
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)

  - Widen Intersections
  - Construct Additional Lanes

- Old Petersburg Rd (Old Evans Rd to Baston Rd)
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Widen Intersections
  - Construct Additional Lanes

- Washington Rd (Old Washington Rd to William Few Pkwy)
  - Establish Land Use and Design Regulations
  - Provide Access Management (driveway and median control)
  - Widen Intersections
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes

- Wrightsboro Rd (Horizon South Pkwy to Reynolds Rd)
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Intersection Widening
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Computerized Signal System
  - Construct Additional Lanes

- SR 47 NB (S of Washington Rd to N of Yelton Rd)
  - Construct Bicycle and Pedestrian Facilities
  - Construct Additional Lanes
  - Provide Access Management (driveway and median control)

- SR 47 NB/SB (N of Columbia Rd to N of I-20)
  - Construct Bicycle and Pedestrian Facilities
  - Construct Additional Lanes
  - Provide Access Management (driveway and median control)

Long Term Deficient Corridors

- Appling Harlem Rd (Columbia Rd to Wrightsboro Rd)
  - Establish Land Use and Design Regulations
  - Provide Access Management (driveway and median control)
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes

- Columbia Rd (Hereford Farm Rd to Old Belair Rd)
  - Construct Bicycle and Pedestrian Facilities
  - Improve Signal Operations
  - Widen Intersections
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes
  - Provide Access Management (driveway and median control)

- Hereford Farm Rd (Columbia Rd to Blanchard Rd)
  - Establish Land Use and Design Regulations
  - Construct Bicycle and Pedestrian Facilities

  - Provide Access Management (driveway and median control)
  - Intersection Widening
  - Computerized Signal System
  - Construct Additional Lanes

- I-20 (McDuffie County Boundary to Appling Harlem Rd)
  - Traffic Surveillance
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Advance Travel Information
  - Construct Additional Lanes

- Washington Rd (Scotts Ferry Rd to Old Washington Rd)
  - Establish Land Use and Design Regulations
  - Provide Access Management (driveway and median control)
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes

- Wrightsboro Rd (Chamblin Rd to Horizon South Pkwy)
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Intersection Widening
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Construct Additional Lanes

- SR10/US78 Gordon Highway (Harlem Town to Wrightsboro Rd)
  - Establish Land Use and Design Regulations
  - Construct Bicycle and Pedestrian Facilities
  - Provide Access Management (driveway and median control)
  - Intersection Widening
  - Provide Transit Services (carpool, vanpool, park and ride)
  - Computerized Signal System and Control Center
  - Construct Additional Lanes

8.3.4 Screening Criteria for Deficient Corridors

Qualitative and Quantitative Evaluation Factors were established so that the potential improvements for Columbia County could be evaluated objectively by County staff. These factors were developed by TEI with the assistance of Columbia County staff. This evaluation serves as a ranking for improvements, resulting in a listing of improvement options to meet the County's transportation needs.

Qualitative Criteria

Qualitative criteria were established to evaluate the deficient corridors based on various conditions or standards established through the study process. The following list documents the qualitative criteria established for the roadway network improvement evaluation. These correspond to the vision established in the Goals, Policies and Objectives documented in Section 7.0.

- Continuation of Existing Road Widening Project
- 2025 Long Range Transportation Plan Needs Assessment
- 2025 Long Range Transportation Plan Benefit Cost Analysis
- Governor's Road Improvement Program (GRIP) / National Highway System
- Consistent with the Columbia County Growth Management Plan
- Right of Way Protection Corridor
- Access to Intermodal Facilities
- Construction Designs in Progress
- Development Conditions

By comparing potential projects to these established criteria it was possible to determine which projects scored highest against these critical measures. This information was used as a means of prioritizing projects.

Table 8.3.4.1 displays the qualitative criteria and the associated scoring.

Table 8.3.4.1
Qualitative Criteria and Scoring

Project Prioritization Criteria	Possible Points
Continuation of Existing Road Widening Project Is the proposed project a continuation of any previously completed, or current project provided added lanes to the specific transportation corridor?	No = 0 Yes = 2
2025 Long Range Transportation Plan Needs Assessment Is the proposed project identified as a deficient segment in the Columbia County 2030 Long Range Transportation Needs Plan?	No = 0 Yes = 5
Governor's Road Improvement Program/National Highway System Is the project identified as a GRIP Corridor or part of the National Highway System?	No = 0 Yes = 2
Consistent with the Columbia County Growth Management Plan Is the proposed project consistent with the adopted Growth Management Plan for Columbia County?	No = 0 Yes = 5
Right of Way Protection Corridor Is the proposed project located along any designated corridor for right way protection as described in the Columbia County Growth Management Plan?	No = 0 Yes = 5
Access to Intermodal Facilities Does the proposed project provide primary access to an intermodal or transit facility?	No = 0 Yes = 2
Construction Designs in Progress Are the designs for the proposed project already complete or in the process of being completed?	No = 0 Yes = 2
Development Conditions Is the proposed project located within a development boundary, or, is the specific project part of an approved plan for the redevelopment or revitalization of a developed area, or does the specific project provide access infrastructure to a mixed-use project area?	No = 0 Yes = 3
Does the proposed project complete or link other projects that have been built by a municipality or Columbia County?	No = 0 Yes = 2
Was the proposed project developed through an organized public participation process (such as Community charrette) that was sponsored by a municipality of Columbia County?	No = 0 Yes = 2
Constrained Facility Is the facility constrained in the AM Peak Period (LOS E or worse)?	No = 0 Yes = 2
Is the facility Constrained in the PM Peak Period (LOS E or worse?	No = 0 Yes = 2
Is the facility constrained during the daily period (LOS D or worse)?	No = 0 Yes = 5
Sub-Total Possible Points	39

The total points established by the Qualitative Criteria range from 0 to 39 points. These points were added to the points received from the Quantitative Criteria, which are documented below.

Quantitative Criteria

Quantitative criteria are set up to evaluate the deficient corridors based on various measurable conditions. The following list documents the quantitative criteria established for the roadway network improvement evaluation.

- Volume to Capacity Ratio
- Number of Crashes per 1,000 Vehicle Miles Traveled
- Number of Fatalities

Complete crash data was only available for state roads. Complete crash data could not be provided for County roads and lower. Consequently, these facilities were not able to receive points based on the number of crashes or the number a fatalities. The total value possible for these categories is 4 points, so some of the county facilities received a slightly lower score than state roads, and this should be factored into the decision making process.

Table 8.3.4.2 displays the quantitative criteria and the associated scoring. Points are assigned to volume to capacity ratios for the AM peak, PM peak and Daily period. Therefore the point range for volume to capacity ratio is 0.75 to 27 points (9 points possible for each period). The total points established by the Qualitative Criteria range from 0.75 to 31 points.

The total points for the qualitative and quantitative criteria that a facility can receive is 70 points. Corridors with higher points are considered to achieve more of the goals and objectives established for the LRTP. The points are not meant to be the final decision on whether a project should be implemented or not. Instead these rankings should be employed in conjunction with input from key technical staff from Columbia County and GDOT; input from political decision makers; and, public comment. However, the total points, from the Qualitative and Quantitative scoring, could be used to establish a priority ranking.

Table 8.3.4.2
Quantitative Criteria and Scoring

Roadway Project Prioritization Criteria	Possible Points
Volume to Capacity Ratio (AM, PM, and Daily)	***x3***
0.0001-0.1307	0.25
0.1308-0.1961	0.50
0.1962-0.2611	0.75
0.2612-0.3269	1.00
0.3270-0.3923	1.25
0.3924-0.4577	1.50
0.4578-0.4599	1.75
0.4600-0.5099	2.00
0.5100-0.5599	2.25
0.5600-0.6099	2.50
0.6100-0.6599	2.75
0.6600-0.7099	3.00
0.7100-0.7599	3.25
0.7600-0.8099	3.50
0.8100-0.8599	3.75
0.8600-0.8949	4.00
0.9000-0.9299	4.50
0.9300-0.9649	5.00
0.9650-0.9999	5.50
1.0000-1.1999	6.00
1.2000-1.3999	7.00
1.4000-1.5999	8.00
1.60	9.00
Number of Crashes per 1,000 Vehicle Miles Traveled	
0.01-0.49	0.25
0.50-0.99	0.50
1.00 -1.99	0.75
2.00-2.49	1.00
2.50-2.99	1.25
3.00-3.99	1.50
4.00-5.99	1.75
6.00	2.00
Number of Fatalities	
1	1
2 or more	2
Sub-Total Possible Points	31

Based upon the identified improvements and the evaluations made during the quantitative and qualitative evaluation, a set of recommended near, mid, and long-term transportation projects was established. The scoring for the deficient corridors is displayed in Table 8.3.5.

Table 8.3.5
Deficient Corridor Evaluation Criteria

Project Ref. No.	Facility	Segment Limits: From	Segment Limits: To	Qualitative Criteria	Continuation of Existing Road Widening Project	2025 LRTP Needs Assessment	Governor's Road Improvement Program / National Highway System	Consistent with Columbia County Growth Management Plan	Right of Way Protection Corridor	Alternative LOS Corridor	Access Intermodal Facilities	Construction Design in Progress	Development Conditions	Constrained Facility (GDOT Standards): AM Peak	Constrained Facility (GDOT Standards): PM Peak	Constrained Facility (GDOT Standards): Daily	*Sub-Total Qualitative Criteria*	Quantitative Criteria	Volume/Capacity Ratio: AM Peak	Volume/Capacity Ratio: PM Peak	Volume/Capacity Ratio: Daily	Number of Accidents/1,000 Vehicle Miles Traveled	Number of Fatalities	*Sub-Total Quantitative Criteria*	**Total Score for Project**
					0-2	*0-5*	*0-2*	*0-5*	*0-5*	*0-2*	*0-2*	*0-2*	*0-7*	*0-2*	*0-2*	*0-5*									
	Capacity Improvements/New Roadways																								
	Near Term Deficient Segments																								
1	Columbia Rd	Old Belair Rd	Belair Rd			✓		✓		✓			✓	✓	✓		*19.00*		6.00	6.00	2.50	2.00		*16.50*	**35.50**
2	Flowing Wells Rd	I-20	Washington Rd			✓		✓				✓		✓	✓		*16.00*		5.50	5.00	3.00			*13.50*	**29.50**
3	Fury's Ferry Rd	Hardy McManus Rd	Evans to Locks Rd			✓		✓		✓				✓	✓	✓	*21.00*		8.00	8.00	7.00	1.25		*24.25*	**45.25**
4	Gibbs Rd-Cox Rd-Owens Rd	Washington Rd	Washington Rd			✓		✓	✓	✓			✓	✓	✓		*26.00*		6.00	5.00	2.50			*13.50*	**39.50**
5	Hereford Farm Rd	Belair Rd	Gibbs Rd			✓		✓		✓			✓	✓	✓	✓	*26.00*		7.00	6.00	3.25			*16.25*	**42.25**
6	Horizon South Pkwy	I-20	Wrightsboro Rd			✓		✓			✓		✓	✓			*17.00*		5.00	3.00	2.50	0.75		*11.25*	**28.25**
7	I-20 WB Off-Ramp	at Belair Rd, Lewiston Rd, and Appling Harlem Rd				✓	✓	✓						✓	✓	✓	*21.00*		6.00	7.00	4.00			*17.00*	**38.00**
8	I-20 EB On-Ramp	at Belair Rd, Lewiston Rd, and Appling Harlem Rd				✓	✓	✓						✓	✓	✓	*21.00*		6.00	5.00	4.50			*15.50*	**36.50**
9	I-20	Appling Harlem Rd	Belair Rd			✓	✓	✓			✓		✓	✓	✓	✓	*28.00*		6.00	6.00	7.00	0.50	1.00	*20.50*	**48.50**
10	Lewiston Rd	Columbia Rd	I-20			✓		✓		✓	✓				✓		*16.00*		3.75	4.00	3.25	1.25		*12.25*	**28.25**
11	North Belair Rd	Fury's Ferry Rd	Washington Rd			✓		✓				✓	✓	✓	✓	✓	*26.00*		6.00	6.00	4.00			*16.00*	**42.00**
12	Old Evans Rd	Martinez Blvd	Washington Rd			✓		✓		✓			✓	✓	✓	✓	*12.00*		6.00	6.00	4.00			*16.00*	**28.00**
13	Old Evans Rd	Washington Rd	Old Petersburg Rd			✓		✓		✓			✓	✓	✓		*7.00*		6.00	6.00	3.00			*15.00*	**22.00**
14	Washington Rd	William Few Pkwy	Belair Rd		✓	✓		✓				✓	✓	✓	✓	✓	*26.00*		9.00	8.00	5.50	2.00		*24.50*	**50.50**
15	William Few Pkwy Connector	William Few Pkwy	Hereford Farm Rd			✓		✓	✓	✓			✓				*22.00*							*0.00*	**22.00**
16	William Few Pkwy Extension	Washington Rd	Hardy McManus Rd					✓	✓	✓		✓	✓				*19.00*							*0.00*	**19.00**
17	Wrightsboro Rd	Reynolds Rd	Richmond County			✓		✓		✓				✓	✓	✓	*21.00*		6.00	6.00	3.75			*15.75*	**36.75**
18	SR 47 SB	N of Ridge Rd (MP 2.45)	N of Keg Creek Dr (MP 3.88)			✓						✓					*7.00*					1.00		*1.00*	**8.00**
	Mid Term Deficient Segments																								
19	Columbia Rd	William Few Pkwy	Hereford Farm Rd		✓	✓		✓		✓			✓	✓	✓	✓	*26.00*		7.00	6.00	3.50	0.75	1.00	*18.25*	**44.25**
20	Hereford Farm Rd	Blanchard Rd	Gibbs Rd		✓	✓		✓		✓			✓	✓	✓	✓	*26.00*		7.00	6.00	3.50			*16.50*	**42.50**
21	Old Petersburg Rd	Old Evans Rd	Baston Rd			✓		✓		✓		✓		✓	✓		*18.00*		5.50	5.00	3.00			*13.50*	**31.50**
22	Washington Rd	Old Washington Rd	William Few Pkwy		✓	✓		✓				✓	✓	✓	✓	✓	*21.00*		6.00	6.00	4.00	1.75		*17.75*	**38.75**
23	Wrightsboro Rd	Horizon South Pkwy	Reynolds Rd		✓	✓		✓		✓				✓	✓	✓	*26.00*		6.00	6.00	3.50			*15.50*	**41.50**
24	SR 47 NB	S of Washington Rd (MP 8.33)	N of Yelton Rd (MP 9.53)			✓						✓					*7.00*					0.00		*0.00*	**7.00**
25	SR 47 NB/SB	N of Columbia Rd (MP 13.48)	N of I-20 (MP 15.18)			✓						✓					*7.00*					0.50		*0.50*	**7.50**
	Long Term Deficient Segments																								
26	Appling Harlem Rd	Columbia Rd	Wrightsboro Rd			✓		✓		✓					✓	✓	*19.00*		3.75	4.00	3.50	0.75		*12.00*	**31.00**
27	Columbia Rd	Hereford Farm Rd	Old Belair Rd		✓	✓		✓		✓				✓	✓		*18.00*		6.00	5.50	3.00	1.25		*15.75*	**33.75**
28	Hereford Farm Rd	Columbia Rd	Blanchard Rd		✓	✓		✓		✓			✓	✓			*19.00*		4.00	3.50	2.50			*10.00*	**29.00**
29	I-20	McDuffie County	Appling Harlem Rd		✓	✓	✓	✓					✓			✓	*24.00*		2.50	3.50	4.50	0.50	1.00	*12.00*	**36.00**
30	Washington Rd	Scotts Ferry Rd	Old Washington Rd		✓	✓						✓		✓	✓	✓	*18.00*		6.00	6.00	4.00			*16.00*	**34.00**
31	Wrightsboro Rd	Chamblin Rd	Horizon South Pkwy		✓	✓		✓		✓				✓	✓		*18.00*		6.00	5.00	3.00		1.00	*15.00*	**33.00**
32	SR10/US78 Gordon Highway	Harlem Town	Wrightsboro Rd					✓		✓	✓						*9.00*					0.75		*0.75*	**9.75**

The following list ranks the congested corridors in descending order from the points awarded from Table 8.3.5.

- **Near Term Deficient Segments**
  - Washington Rd - William Few Pkwy to Belair Rd
  - I-20 - Appling Harlem Rd to Belair Rd
  - Fury's Ferry Rd - Hardy McManus Rd to Evans to Locks Rd
  - Hereford Farm Rd - Belair Rd to Gibbs Rd
  - North Belair Rd - Fury's Ferry Rd to Washington Rd
  - Gibbs Rd-Cox Rd-Owens Rd - Washington Rd to Washington Rd
  - I-20 WB Off-Ramp at Belair Rd, Lewiston Rd, and Appling Harlem Rd
  - Wrightsboro Rd - Reynolds Rd to Richmond County Boundary
  - I-20 EB On-Ramp at Belair Rd, Lewiston Rd, and Appling Harlem Rd
  - Columbia Rd - Old Belair Rd to Belair Rd
  - Flowing Wells Rd - I-20 to Washington Rd
  - Horizon South Pkwy - I-20 to Wrightsboro Rd
  - Lewiston Rd - Columbia Rd to I-20
  - Old Evans Rd - Martinez Blvd to Washington Rd
  - Old Evans Rd - Washington Rd to Old Petersburg Rd
  - William Few Pkwy Connector - William Few Pkwy to Hereford Farm Rd
  - William Few Pkwy Extension - Washington Rd to Hardy McManus Rd
  - SR 47 SB - N of Ridge Rd to N of Keg Creek Dr

- **Mid Term Deficient Segments**
  - Columbia Rd - William Few Pkwy to Hereford Farm Rd
  - Hereford Farm Rd - Blanchard Rd to Gibbs Rd
  - Wrightsboro Rd - Horizon South Pkwy to Reynolds Rd
  - Washington Rd - Old Washington Rd to William Few Pkwy
  - Old Petersburg Rd - Old Evans Rd to Baston Rd
  - SR 47 NB/SB - N of Columbia Rd to N of I-20
  - SR 47 NB - S of Washington Rd to N of Yelton Rd

- **Long Term Deficient Segments**
  - I-20 - McDuffie County Boundary to Appling Harlem Rd
  - Washington Rd - Scotts Ferry Rd to Old Washington Rd
  - Columbia Rd - Hereford Farm Rd to Old Belair Rd
  - Wrightsboro Rd - Chamblin Rd to Horizon South Pkwy
  - Appling Harlem Rd - Columbia Rd to Wrightsboro Rd
  - Hereford Farm Rd - Columbia Rd to Blanchard Rd
  - SR 10/US 78 Gordon Highway - Harlem Town to Wrightsboro Rd

Projects listed first should be considered a higher priority for improvement based on the quantitative and qualitative points developed in Section 8.3.4. William Few Parkway Extension and Connector appear as a lesser priority on the list. However, since these facilities currently do not exist they are not congested and receive no points for this category.